



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9226; Directorate Identifier 2016-SW-065-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; NavWorx, Inc. Automatic Dependent Surveillance**

**Broadcast Universal Access Transceiver Units**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for NavWorx, Inc. (NavWorx) Automatic Dependent Surveillance Broadcast (ADS-B) Universal Access Transceiver Units (unit). This proposed AD would require removing the ADS-B unit and would prohibit installing the affected unit on any aircraft. This proposed AD is prompted by a design change for the unit to broadcast a Source Integrity Level (SIL) of 3 when the uncertified internal global positioning system (GPS) source necessitates a SIL of 0. The proposed actions are intended to prevent an ADS-B unit from communicating unreliable position information to Air Traffic Control (ATC) and nearby aircraft, resulting in a potential aircraft collision.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9226; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kyle Cobble, Aviation Safety Engineer, Fort Worth Aircraft Certification Office, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177, telephone (817) 222-5172, email [kyle.cobble@faa.gov](mailto:kyle.cobble@faa.gov); or Michael Heusser, Program Manager, Continued Operational Safety Branch, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177, telephone (817) 222-5038, email [michael.a.heusser@faa.gov](mailto:michael.a.heusser@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document.

The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

NavWorx produces ADS-B units under Technical Standard Order (TSO) C-154c. NavWorx has implemented a design change by revising its software for ADS-B units, Model ADS600-B part number (P/N) 200-0012 and 200-0013 and Model ADS600-EXP P/N 200-8013. The design of the units includes an internal uncertified GPS source. ADS-B units with an uncertified GPS source are required to broadcast a SIL of 0. The software revision (version 4.0.6) resulted in the units broadcasting a SIL of 3. This design

change was not approved by the FAA and rendered the units noncompliant with TSO-C154c. Because the ADS-B unit incorrectly broadcasts a SIL of 3 instead of 0, the unit could communicate unreliable position information to ATC and nearby aircraft, resulting in an aircraft collision.

NavWorx ADS-B units with P/N 200-0112 and 200-0113 are TSO-C154c compliant and are not the subject of this proposed AD.

### **FAA's Determination**

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of this same type design.

### **Proposed AD Requirements**

This proposed AD would require removing the ADS-B unit before further flight and would also prohibit installing the affected ADS-B unit on any aircraft.

### **Costs of Compliance**

We estimate that this proposed AD would affect approximately 800 ADS-B units installed on various aircraft of U.S. registry. Operators may incur the following costs in order to comply with this proposed AD. The average labor rate is \$85 per work-hour and removing the ADS-B unit, if required, would take about 1 work-hour, for a total of \$85 per aircraft.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**NavWorx, Inc.:** Docket No. FAA-2016-9226; Directorate Identifier 2016-SW-065-AD.

##### **(a) Applicability**

This AD applies to the following NavWorx, Inc., Automatic Dependent Surveillance-Broadcast (ADS-B) Universal Access Transceiver units (unit) installed on aircraft certificated in any category:

- (1) Model ADS600-B part number (P/N) 200-0012;
- (2) Model ADS600-B P/N 200-0013; and
- (3) Model ADS600-EXP P/N 200-8013.

**(b) Unsafe Condition**

This AD defines the unsafe condition as an ADS-B unit incorrectly broadcasting a Source Integrity Level of 3 instead of 0. This condition could result in the unit communicating unreliable position information to Air Traffic Control and nearby aircraft and a subsequent aircraft collision.

**(c) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Before further flight, remove the ADS-B unit.

(2) After the effective date of this AD, do not install any ADS-B unit that is listed in the applicability of this AD on any aircraft.

**(f) Alternative Methods of Compliance (AMOC)**

(1) The Manager, Fort Worth Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Kyle Cobble, Aviation Safety Engineer, Fort Worth Aircraft Certification Office, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177, telephone (817) 222-5172, email [kyle.cobble@faa.gov](mailto:kyle.cobble@faa.gov); or Michael Heusser, Program Manager, Continued Operational Safety Branch, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177, telephone (817) 222-5038, email [michael.a.heusser@faa.gov](mailto:michael.a.heusser@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(g) Subject**

Joint Aircraft Service Component (JASC) Code: 3452, ATC Transponder System.

Issued in Fort Worth, Texas, on October 11, 2016.

Lance T. Gant,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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